



Allergens have been identified: what now?

The best treatment is complete avoidance of the allergens. In case of **flea or food allergies**, avoidance of the causative allergens is generally easy, but if the dog is suffering from **pollen or house dust mite allergy**, it is nearly impossible to selectively avoid those allergens. In the case of **short lasting seasonal allergies (3 – 4 months)**, certain medications or precautions can be taken to alleviate the severity of clinical signs. Because of adverse side effects, treatments should only be given for limited periods of time in the case of perennial allergies. An **Allergen-specific immunotherapy (ASIT, hyposensitization)** should be considered for long-term treatment. This kind of therapy is only available for environmental allergens (house dust mites, moulds, insects, pollen), but not for flea saliva or food ingredients. What is Allergen-specific immunotherapy (ASIT)? An Allergen-specific immunotherapy is based on the results of an allergy test of your dog. **Individualized solutions** containing the relevant allergens, to which your dog has shown positive reactions in previously

performed allergy testing, are prepared and administered to your dog subcutaneously (under the skin) with increasing concentrations and intervals over a longer period of time. In most cases, this treatment increases the tolerance of your dog’s immune system to the respective allergens. Very often improvements can be seen as early as a few weeks after beginning the treatment. However, sometimes it can take longer (several months) before improvement is noticeable. **In about 70% of cases this type of treatment is effective in at least reducing the severity of allergic signs** or completely abolishing them. In rare cases, side effects may be observed, such as a short lived worsening of clinical signs. In most cases, your veterinarian will adjust the dosage until the side effects disappear. Please consider that an allergy is a disease that **cannot be cured** and will persist lifelong. Therefore, any treatment – including ASIT – must also be administered lifelong. It is also possible for allergies to be **passed on to offspring**, so please take that into consideration should you intend to breed with an affected dog. The only way to deal with an allergy and to improve quality of life of your dog is to identify the causative allergens, try to avoid them as far as possible and use the Allergen-specific immunotherapy (ASIT, see above). In cooperation with your veterinarian, you can arrive at a diagnosis and develop a strategy that will help to achieve a higher quality of life for you and your dog.

HELP & ADVICE

- ➔ **Allergy**
= Hypersensitivity reaction

➔ **Allergies in dogs** can range from harmless to severe clinical disease which can be seriously detrimental to the animal's quality of life.

➔ **Most important clinical signs**
Mild to severe pruritus, skin lesions and intestinal problems.

➔ **Onset of clinical signs**
Depending on the type of allergen: onset while still a puppy or in senior years, seasonal or perennial, localized on the face, paws, between the digits, or on the entire body.
- ➔ **Common causes**
Fleas, house dust mites, pollen, various food ingredients.

➔ **Tests**
Exclusion of other diseases, detailed history, clinical signs, skin or serological allergy test, and elimination diet.

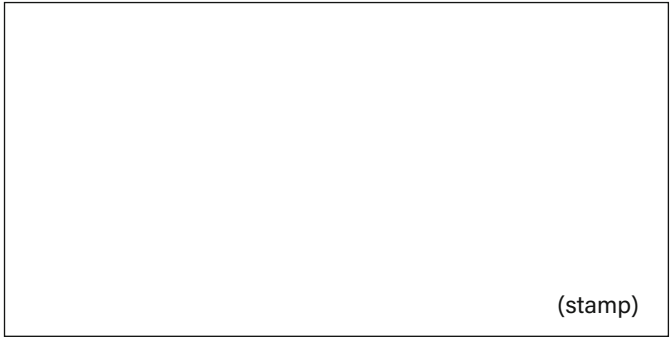
➔ **Food allergy**
Look for diarrhea, vomiting or frequent defaecation.

➔ **Basis of a diagnosis**
Precise analysis and laboratory testing in a good, renowned laboratory.

Lab profile

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Founded:	1989
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**ALLERGIES
IN DOGS**



HELP & ADVICE
The modern information series provided
by your vet and LABOKLIN



Description of allergies

Allergies – also called **hypersensitivity** – can affect dogs in many different ways. Generally, an allergy is an overreaction of the immune system which can result in various clinical signs. The **most important sign** in dogs is pruritus with or without miscellaneous skin lesions. The course of allergies can vary greatly: some dogs only suffer from a harmless type of allergic disease with mild pathology while others suffer from severe clinical disease which can be seriously detrimental to their quality of life.



Early signs of an allergy

Flea allergy
Time point/onset and location of signs offer valuable clues to the identification of an allergy. Onset of illness during the warm season are suggestive of an allergy against fleas.

Atopic dermatitis
Allergies against house dust mites cause symptoms throughout the year which can become more severe when the animal spends more time inside or in a bedroom or room with a carpet inside the house. Signs associated with pollen allergies increase during the spring, summer and early fall time.



Food allergy
Allergies against food ingredients can be directly related to food intake. However, this is not always the case and sometimes allergic signs associated with food can occur even days after ingestion of the allergen. Just swapping one food source or company will not result in a decrease in clinical signs.

Overall, it takes a lot of “detective work” to identify the causative agent(s) of an allergy and a lot of patience to treat the clinical signs.

Clinical signs
In atopic dermatitis (the initial) clinical signs appear at the **age** of 6 months to 3 years. An exception are food hypersensitivities, which may become apparent also in puppies or very old dogs. Dogs of all **breeds** can be affected. However, there seems to be an increased susceptibility to the development of allergies in dogs of certain breeds such as WHWT, Boxer, Retriever, Pugs, French Bulldogs, and German Shepherd. The first obvious sign will be an increased **itchiness** of the skin. The owners may notice that the dog grooms excessively and licks



or chews his paws, abdomen, and perineum. **Red spots, baldness (alopecia), scales, and crusts** become evident after the first periods of itching and are the consequence of scratching and secondary infections with yeast or bacteria. Areas most commonly affected are the face and paws. **Ear infections** are quite common. Some animals develop **conjunctivitis** or **respiratory disease**. In cases of flea allergies, the caudal part of the dog and the area around the base of the tail are affected. Food hypersensitivities can present with **diarrhea and/or vomiting** and frequent bowel movements in addition to pruritus and rash.

How to rule out other differential diagnoses?

Due to the fact that **other diseases** can also be responsible for pruritus or skin lesions, your veterinarian will try to rule these out systematically using various clinical or laboratory tests. Depending on the clinical signs and their location, your veterinarian will decide which tests are necessary. Swabs or smears are often taken to



detect bacteria or yeasts. Skin scrapings are used to identify ectoparasites. Skin biopsies which are submitted to a specialised laboratory can also be collected for further testing. Some diseases can be diagnosed using serological blood tests. If all other differential diagnoses have been ruled out, your veterinarian will take further steps for **allergy diagnostics**.

Basically, you have to distinguish between two different test procedures:

Intradermal test/skin test
Several different allergens (e.g. pollen or house dust mites) are injected directly into the skin of your dog. The reaction of the skin (wheal) is evaluated and indicative for hypersensitivity to the respective substance.

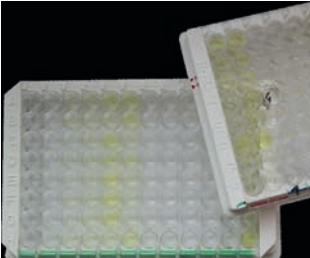


Serological test/blood test
Some allergies induce allergen-specific **antibodies** that can be detected in a serological blood test. These antibodies can be detected in the dog’s blood, so for this type of test your veterinarian will take a blood sample and submit it to a specialised laboratory (Laboklin) for analysis.

Not every test is feasible for every case, and your veterinarian will have to decide which test is suitable for your dog.

Special case

Food hypersensitivity
Diagnosis of food hypersensitivity can be **challenging**, because the gut-associated immune system has many different ways to respond to allergens. The “gold standard” for diagnosis is a rigorous **elimination diet**. This requires 100 % **compliance and discipline** of the dog’s owner and is especially difficult to perform in households with several dogs, fussy dogs, dogs with free outside access, small children or elderly people who may not always be disciplined enough to stick to the diet.



To diagnose and treat food hypersensitivity it is crucial that the feeding plan which your veterinarian has determined for your animal is closely followed for up to 3 months and that the dog has no access to other food sources. Your veterinarian will advise you to either use a commercially available diet or prepare the food yourself (home cooked diet). If the signs disappear during feeding of the elimination diet, it can be assumed that one (or some) of the ingredients of the previous food was causing the clinical signs. After a thorough elimination diet, the original food has to be fed again (**provocation**). If the signs reappear, an allergy against one or more ingredients of this food is confirmed. It is also possible to detect allergen-specific antibodies (IgE and IgG) against food ingredients in a blood sample. This **serological food allergy test** is very helpful, especially if you and your veterinarian are trying to

compose the new diet for your dog that contains all essential substances but no allergens. We recommend feeding those ingredients (one carbohydrate and one protein source) which have shown negative reactions in both antibody classes (0/0). There are also adverse reactions to food that are not based on antibody reaction, thus, blood tests are not suitable to determine these types of food intolerance. In such cases only an elimination diet – based on ingredients that have never been fed before – can lead to a correct diagnosis.